

MAC-T Monthly Call

Midwest Agriculture and Climate Team

Jan 10, 2020

For more information:

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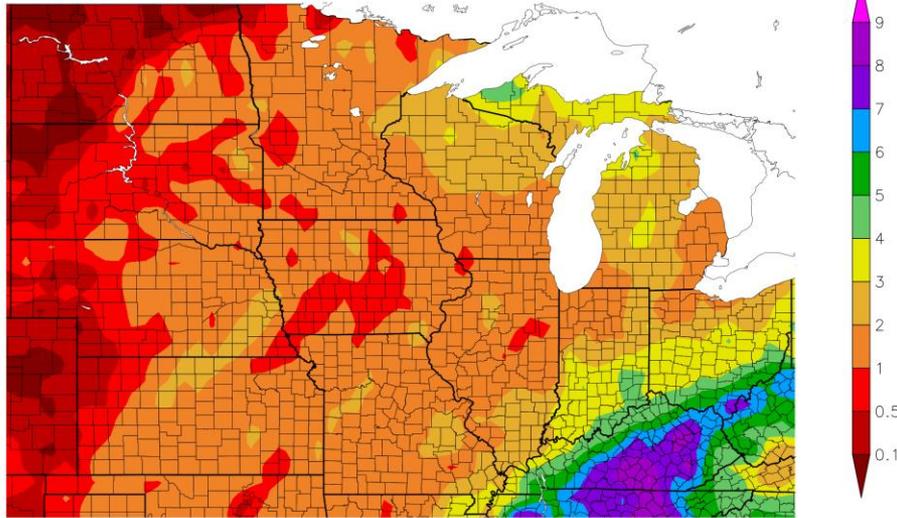


Midwest Climate Hub

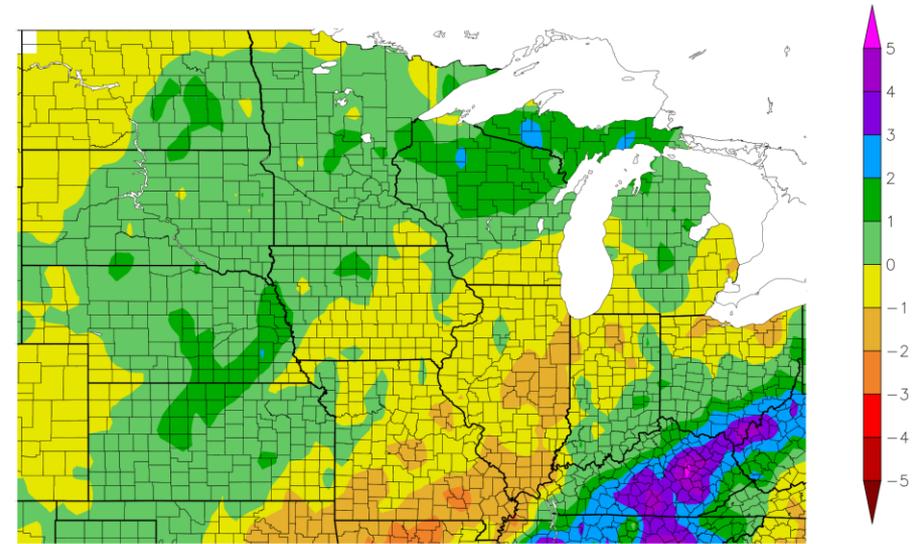
U.S. DEPARTMENT OF AGRICULTURE



Precipitation (in)
12/10/2019 – 1/8/2020



Departure from Normal Precipitation (in)
12/10/2019 – 1/8/2020



Generated 1/9/2020 at HPRCC using provisional data.

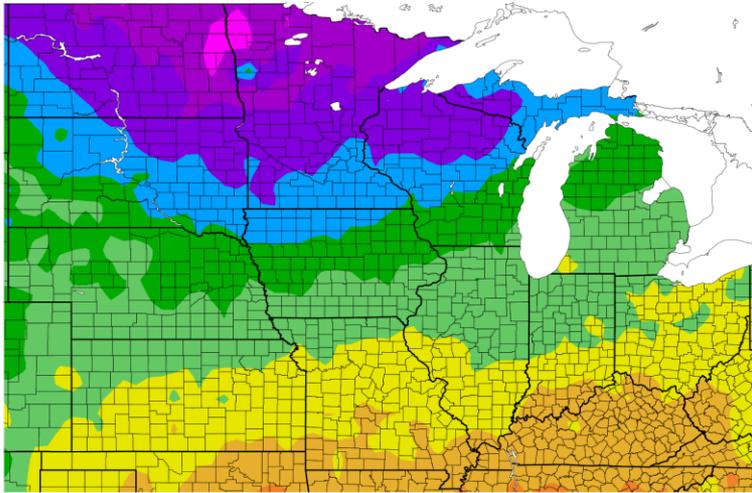
NOAA Regional Climate Centers

Generated 1/9/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Last 30 day precipitation has been above average for much of the area. Well above in the Ohio River vicinity.
- MO-IA-IL and nrn IN/OH have been below average.

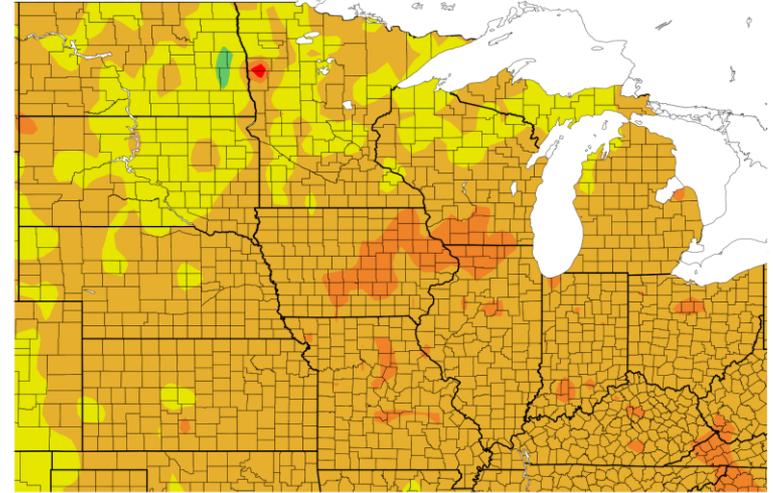
Temperature (F)
12/10/2019 – 1/8/2020



Generated 1/9/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

Departure from Normal Temperature (F)
12/10/2019 – 1/8/2020



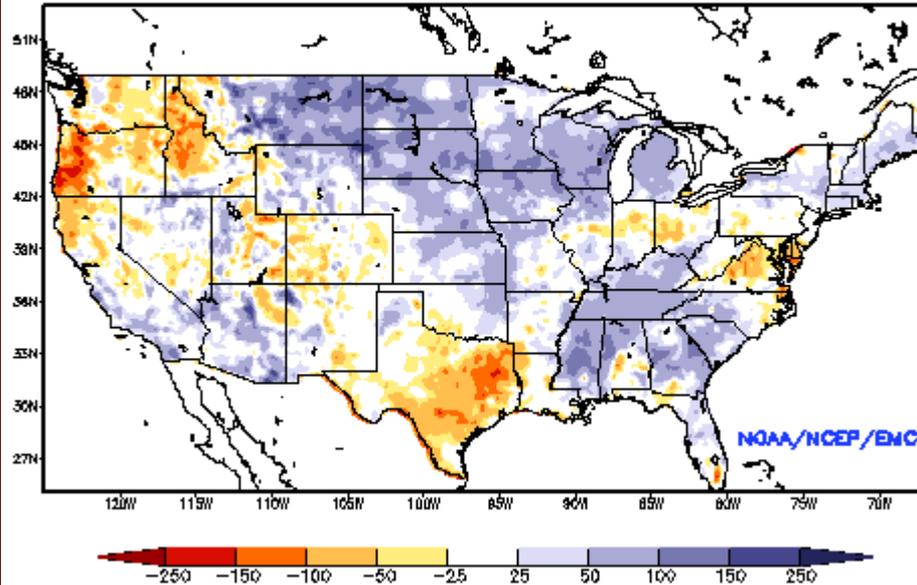
Generated 1/9/2020 at HPRCC using provisional data.

NOAA Regional Climate Centers

- Mostly warmer than average from slightly above across the north to more than 8°F in IA-IL-WI.

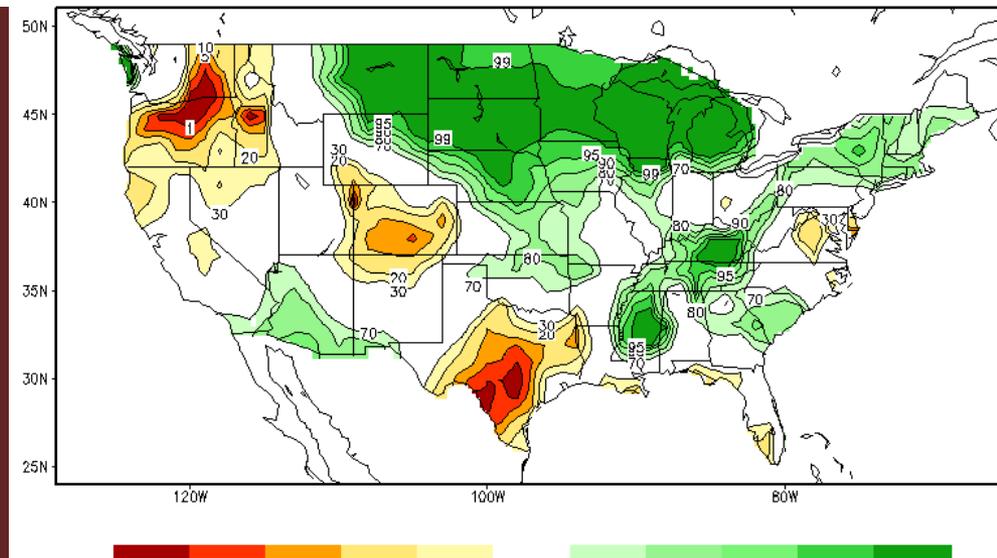
Soil Moisture

Ensemble-Mean - Current Total Column Soil Moisture Anomaly (mm)
NCEP NLDAS Products Valid: JAN 05, 2020



- Soil moisture has not changed much. Still much wetter than avg. over much of the area. Eastern Corn Belt is a little drier possibly. That will be changed quickly.
- Soils can wet by only dry very slowly in the cold season.

Calculated Soil Moisture Ranking Percentile
JAN 09, 2020

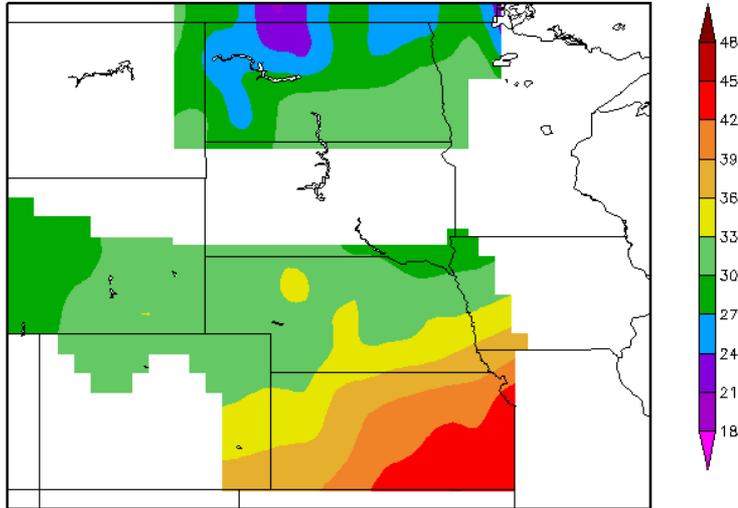


<http://www.emc.ncep.noaa.gov/mmb/nldas/drought/>

http://www.cpc.ncep.noaa.gov/products/Soilmst_Monitoring/US/Soilmst/Soilmst.shtml#

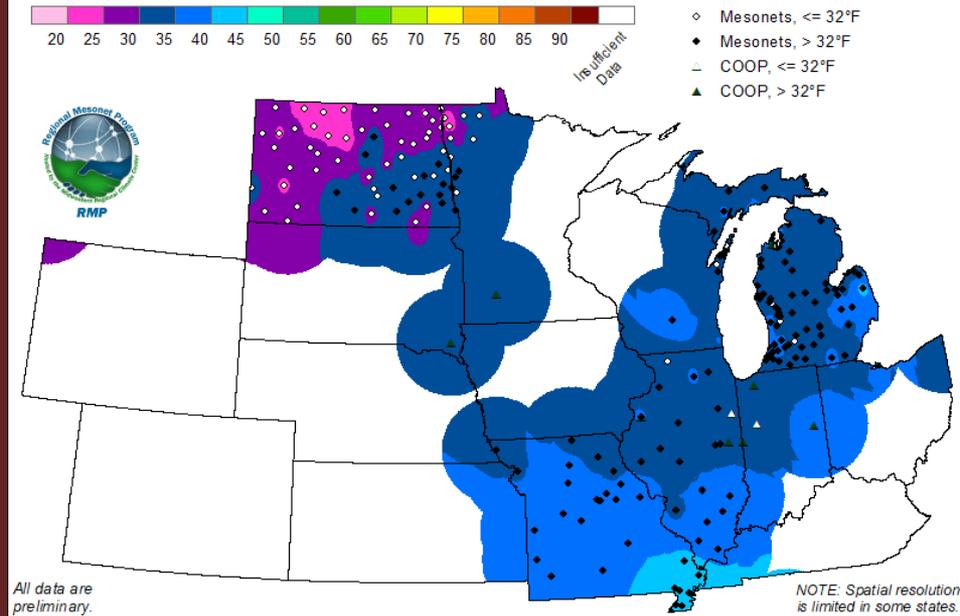
Soil Temperature

Soil Temperature (F at 4 inches)
1/9/2020 - 1/9/2020



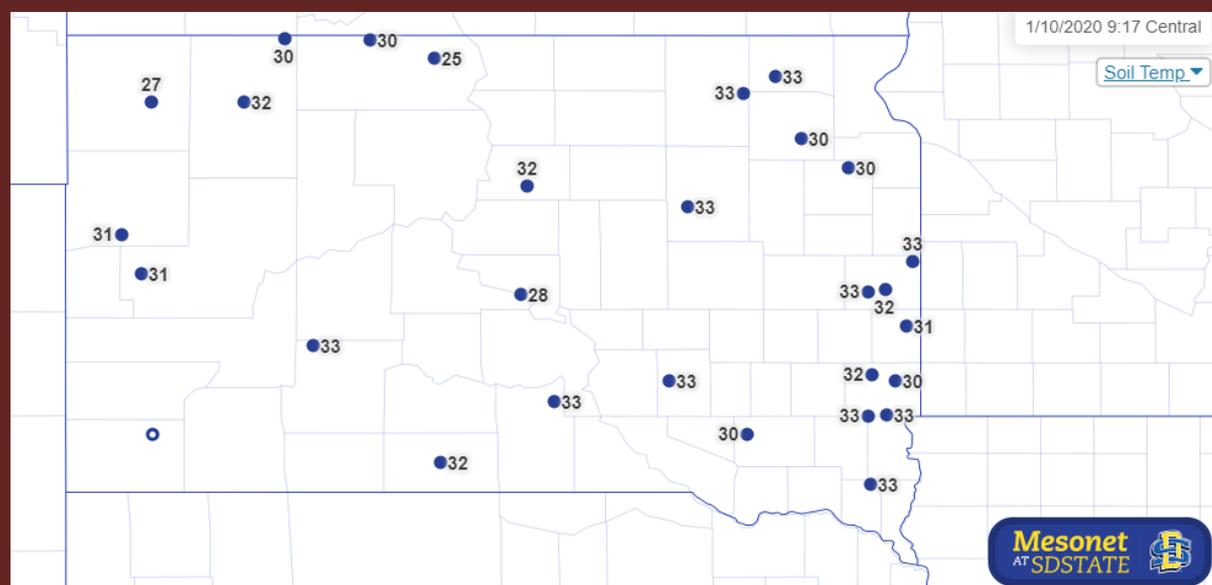
High Plains Regional Climate Center
Generated 1/10/2020 using AWDN data.

4" Soil Temperature (°F) (Bare) 24-Hour Period Through 1/8/2020



All data are preliminary.
NOTE: Spatial resolution is limited in some states.

- Soils frozen at 4" in much of ND, part of SD and MN.
- Also in pockets of other states.
- Upcoming cold will extend the frozen soil area.
- Recent warmth has limited it.



<https://mrcc.illinois.edu/RMP/currentMaps.html>
<https://hprcc.unl.edu/maps.php?map=AWDNMaps>
<http://climate.sdstate.edu>



USDA NASS Crop Progress

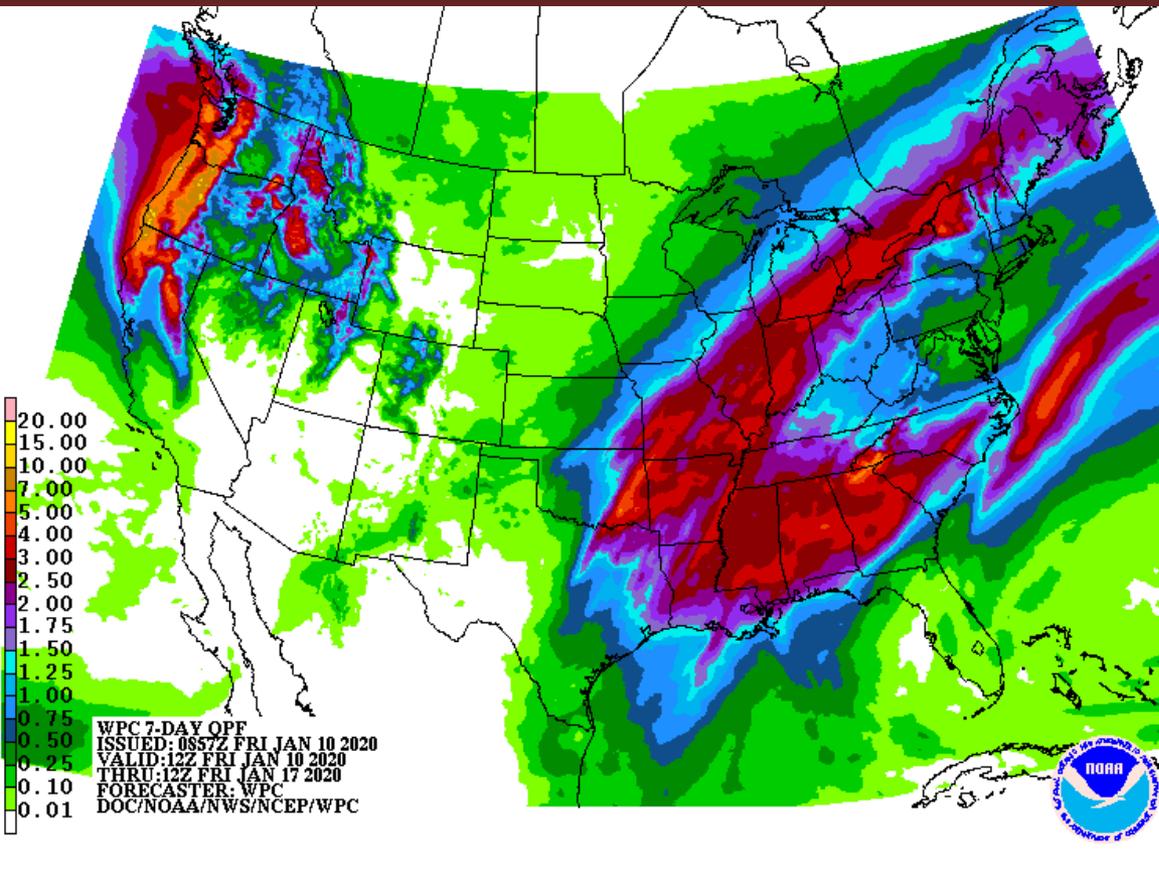
Corn

- NASS no longer mapping crop progress data.
- ND reaching close to 50% of corn harvest; SD around 90% as of last reports.
- Dakotas still have large amounts of sunflowers unharvested also.

Assorted AG Issues

- Wet soils the largest concern.
- Still muddy around the region.
- Unharvested crops still being harvested slowly when possible.
- Watching for upcoming cold for impacts on livestock
- Planning for spring activities.
- Any impacts on specialty crops?

1-7 Day Precip

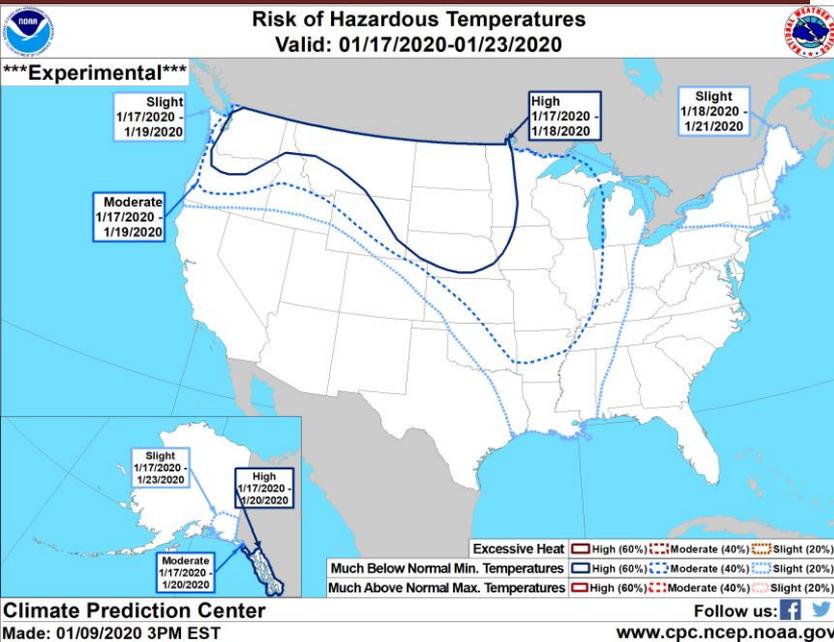
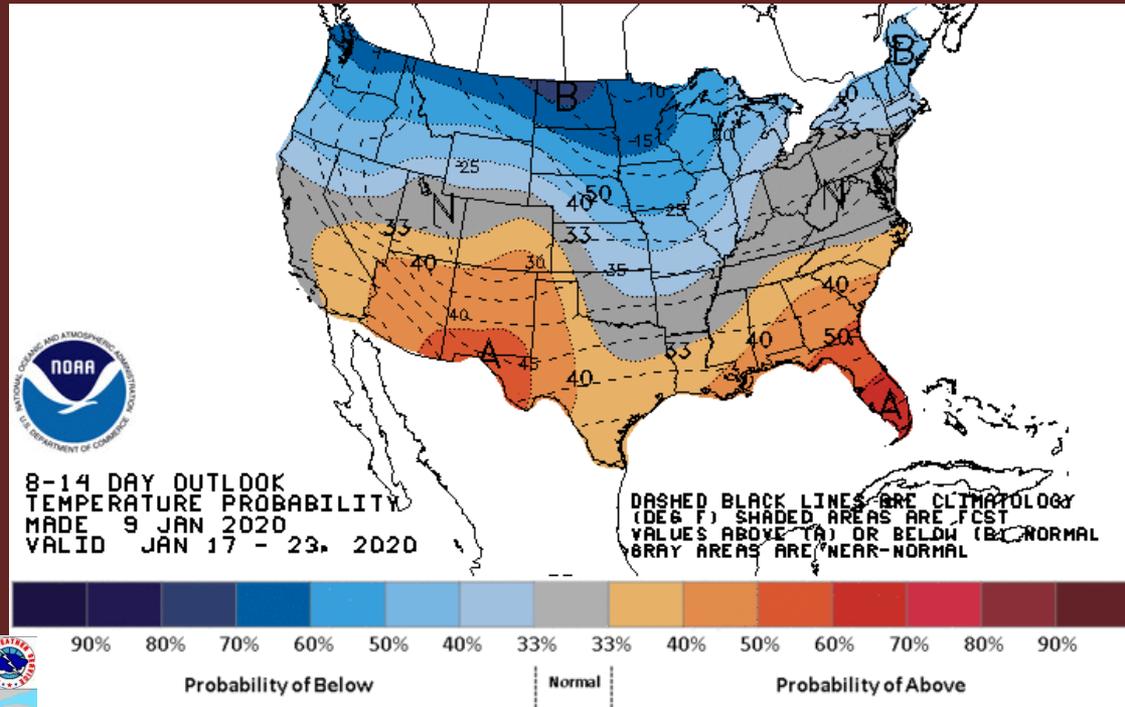


Wettest areas most likely from Missouri up to Michigan. Will wet soils in this area, which are not already wet.

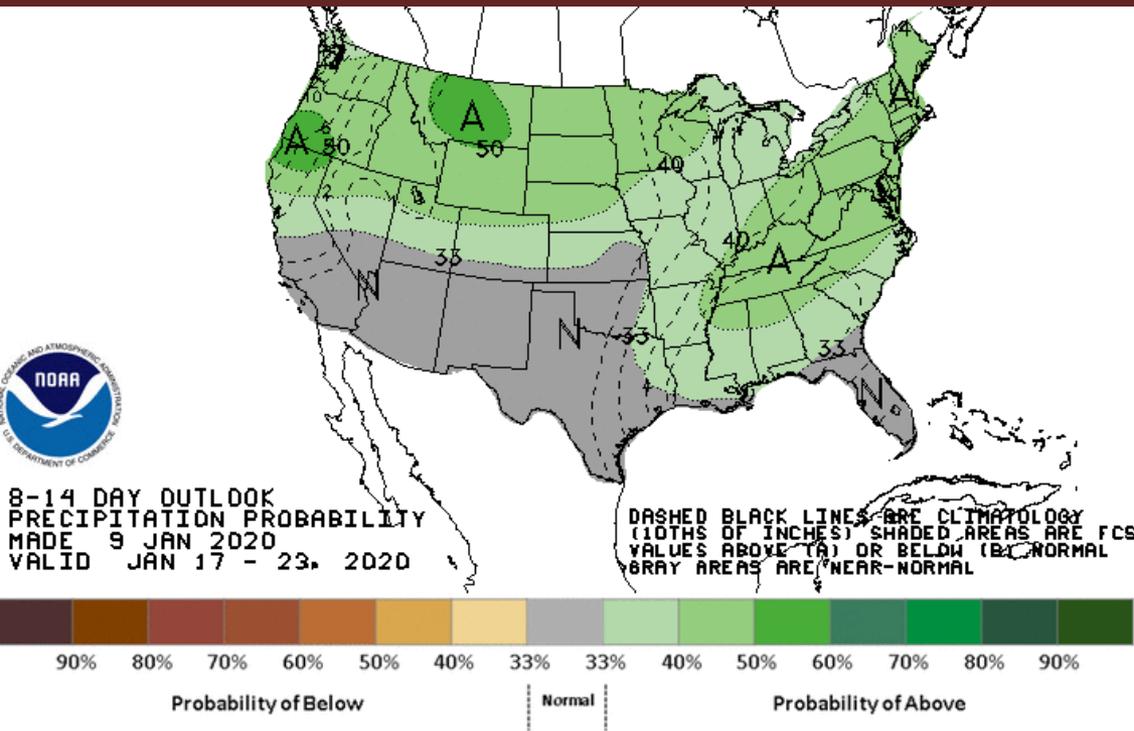
Plains will miss much of this event.

Temperature Outlook

- Cold coming into northern area. With risk of extreme cold.
- Should monitor cattle and prepare for human issues, pets, etc.



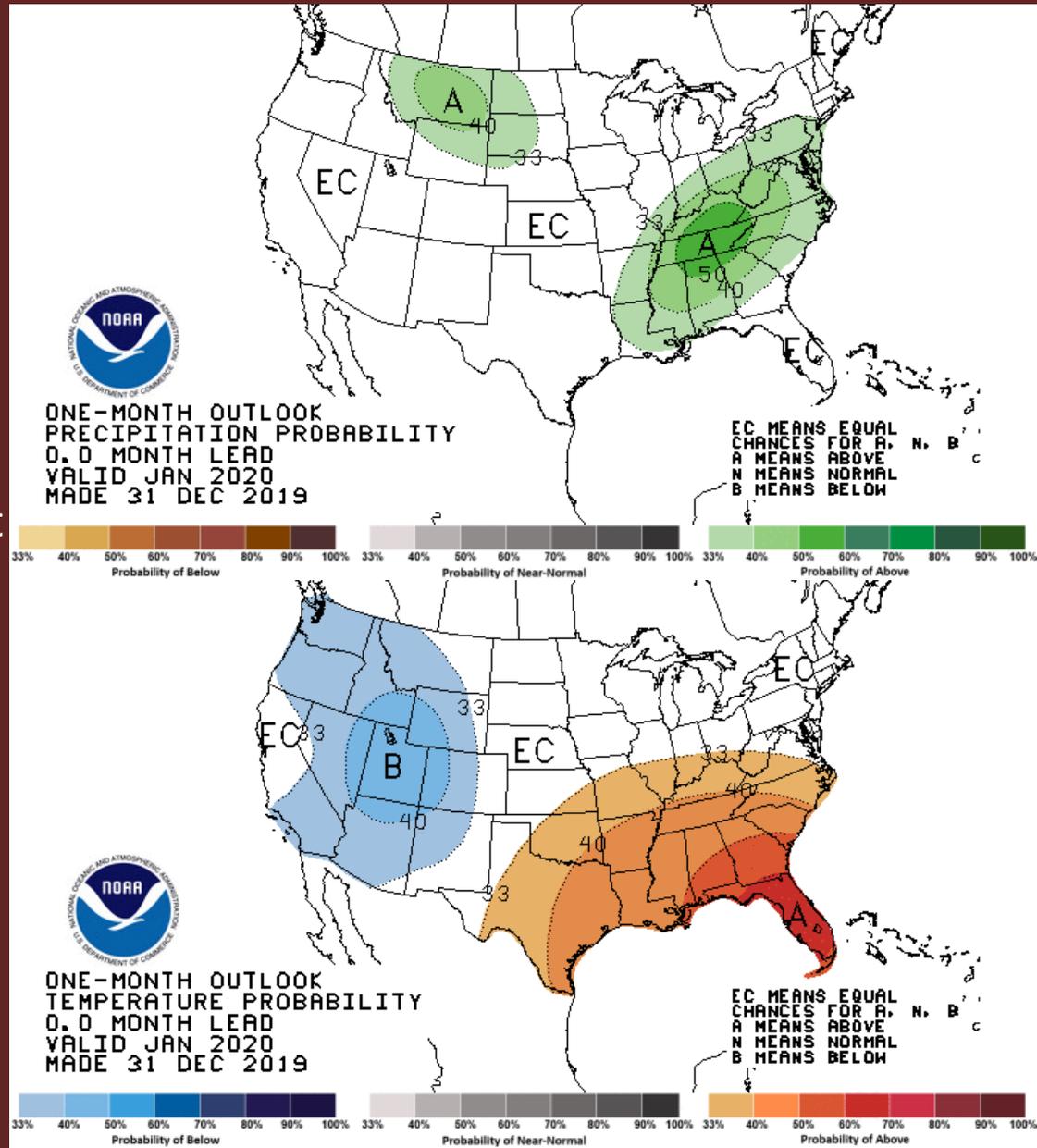
Precipitation Outlook



- Slightly increased chances for precipitation region-wide.
- Northern areas likely snow.
- Eastern areas may be more mixed.

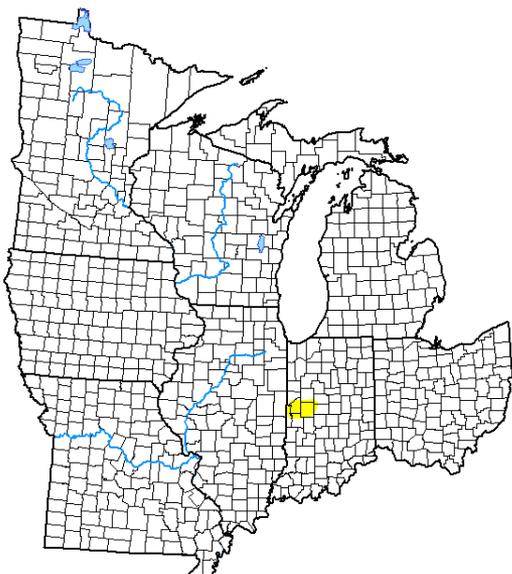
1-Month Outlook

- Increased chances for wetness nrn Plains and Ohio Valley. Will add snow to plains and Missouri River drainage. Will increase soils moisture eastern Corn Belt.
- Temperature likely and impact of warm temps early January with colder later.



Drought in the Midwest

U.S. Drought Monitor USDA Midwest Climate Hub



January 7, 2020
(Released Thursday, Jan. 9, 2020)
Valid 7 a.m. EST

Drought Conditions (Percent Area)

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	99.71	0.29	0.00	0.00	0.00	0.00
Last Week 12-31-2019	99.71	0.29	0.00	0.00	0.00	0.00
3 Months Ago 10-08-2019	82.74	17.26	5.59	0.13	0.00	0.00
Start of Calendar Year 12-31-2019	99.71	0.29	0.00	0.00	0.00	0.00
Start of Water Year 10-01-2019	80.58	19.42	4.98	0.39	0.00	0.00
One Year Ago 01-08-2019	99.45	0.55	0.00	0.00	0.00	0.00

Intensity:



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. For more information on the Drought Monitor, go to <https://droughtmonitor.unl.edu/About.aspx>

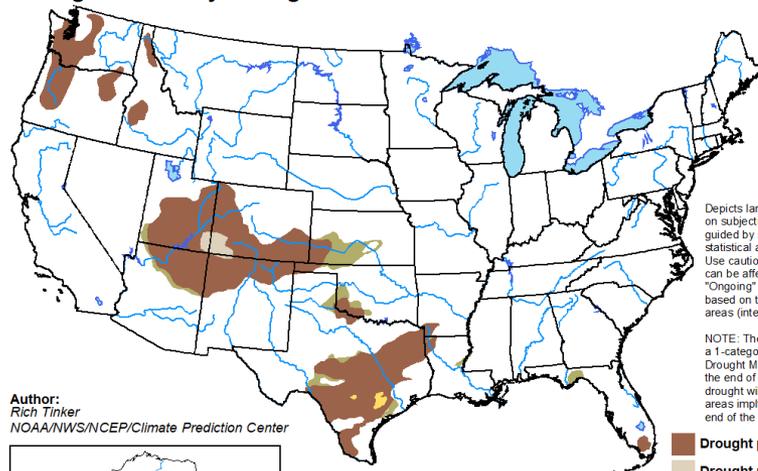
Author:
Curtis Riganti
National Drought Mitigation Center



Conditions were mostly dry north of the Ohio River Valley in the Midwest, with the exception of northern Michigan. Temperatures from 5 to 15 degrees above normal also occurred across most of the region. Aside from a continuing area of abnormal dryness in western Indiana, the Midwest remained free of drought or abnormal dryness this week.

U.S. Monthly Drought Outlook Drought Tendency During the Valid Period

Valid for January 2020
Released December 31, 2019



Depicts large-scale trends based on subjectively derived probabilities guided by short- and long-range statistical and dynamical forecasts. Use caution for applications that can be affected by short lived events. "Ongoing" drought areas are based on the U.S. Drought Monitor areas (intensities of D1 to D4).

NOTE: The tan areas imply at least a 1-category improvement in the Drought Monitor intensity levels by the end of the period, although drought will remain. The green areas imply drought removal by the end of the period (D0 or none).

- Drought persists
- Drought remains but improves
- Drought removal likely
- Drought development likely

Author:
Rich Tinker
NOAA/NWS/NCEP/Climate Prediction Center



<http://go.usa.gov/3eZGd>

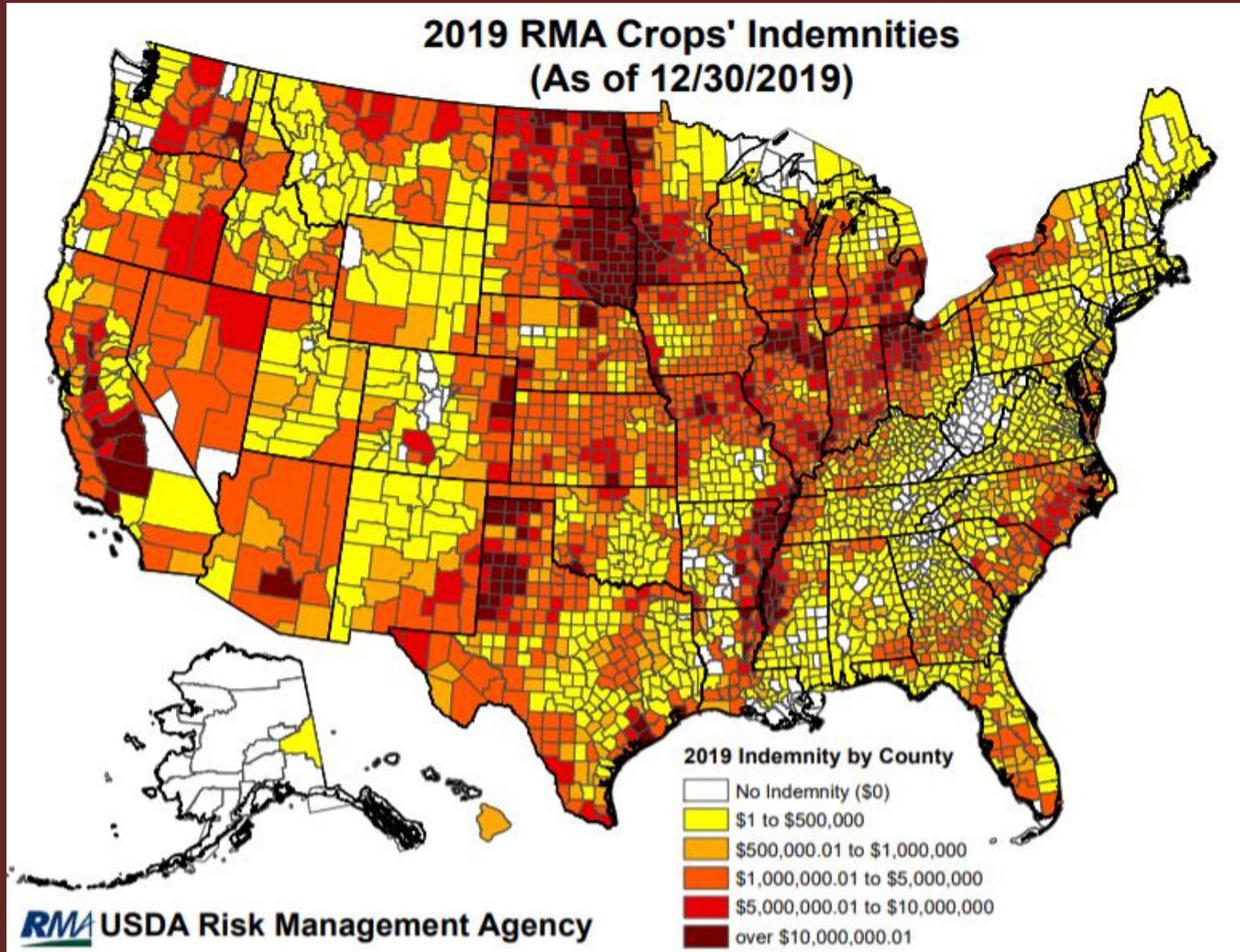
<http://droughtmonitor.unl.edu/>

<http://www.cpc.ncep.noaa.gov/>

Summary

- Cold overspreads much of the area into later January. Some could be severe and difficult for livestock/humans.
- Additional precip chances.
- Soils will continue to be wet or get wetter with these events. Increases chances of spring planting delays.

2019 Crop Indemnities



Next MAC-T Monthly Call

Next Call?
February 5th, 2020